Government QA Best Practices

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Agenda

- Why do projects fail
- What are others doing about it?
- What can we do about it?
- Conclusions

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The Frightening Statistics

Ensure Success

- "66% of large scale projects fail to achieve their stated business objectives, are delivered late, or are substantially over budget" – Standish Group.

Manage Risk

- "Through 2008, IS organizations without stringent risk-assessment procedures and mitigation plans will cancel at least 10 percent of projects initially budgeted at more than $200,000 and at least 20 percent of all projects" *(0.7 probability)*

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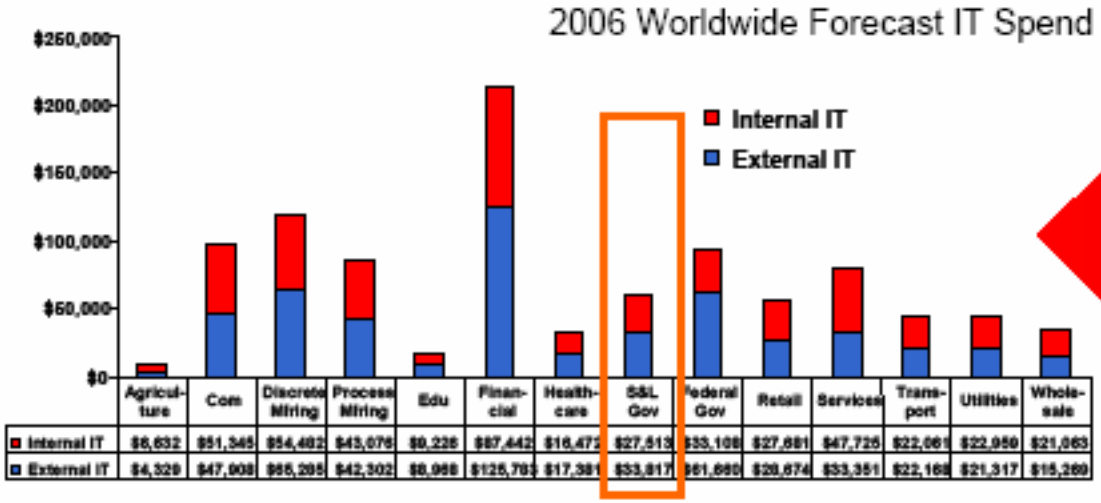
State and Local Government Spends $12 Billion annually on mission-based IT projects



State and Local Govt. spends more than $60 Billion dollars on IT annually

	Frontier	Enhancement	Utility	Infrastructure
Government -- All	***6***	***14***	***26***	***54***
Federal	13	22	22	44
State	5	12	24	58
Local / Municipal	3	12	30	55

The State and Local Government spends about 20% of its total IT budget on Frontier and Enhancement initiatives

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Calculating it Out…

State and Local Spend on IT (Millions)	$60,000
Spending on "New" Initatives	20%
Total Spend on "New" Initatives (Millions)	$12,000
Percentage of Projects that fail	65%
Total Cost of Projects that fail (Millions)	$7,800

Bottom line:

The State and Local government industry spends approximately $8 billion on projects are "late, over budget, or don't deliver the expected benefits"

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Even if we are conservative…

State and Local Spend on IT (Millions)	$60,000
Spending on "New" Initatives	20%
Total Spend on "New" Initatives (Millions)	$12,000
Percentage of Projects that fail	45%
Total Cost of Projects that fail (Millions)	$5,400

Bottom line:

The State and Local government industry spends more than $5 billion on projects that are "late, over budget, or don't deliver the expected benefits"

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Let's Talk About Defining *Failure*

Reason considered a failure (in rank order)

1. Technology did not work
2. Did not meet the requirements
3. It was late
4. Requirements had changed
5. The users would not use it
6. Did not produce the expected benefits
7. No longer mattered to the business
8. Failure in business change management
9. Other reason(s)

Source: Gartner / Forbes 2004

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OK…. So There is a Problem….

Causes of program failure

- ✓ Fog
- ✓ Novice in the cockpit
- ✓ Quicksand
- ✓ Premature haste
- ✓ Cowboy culture
- ✓ Homelessness

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What are others doing?

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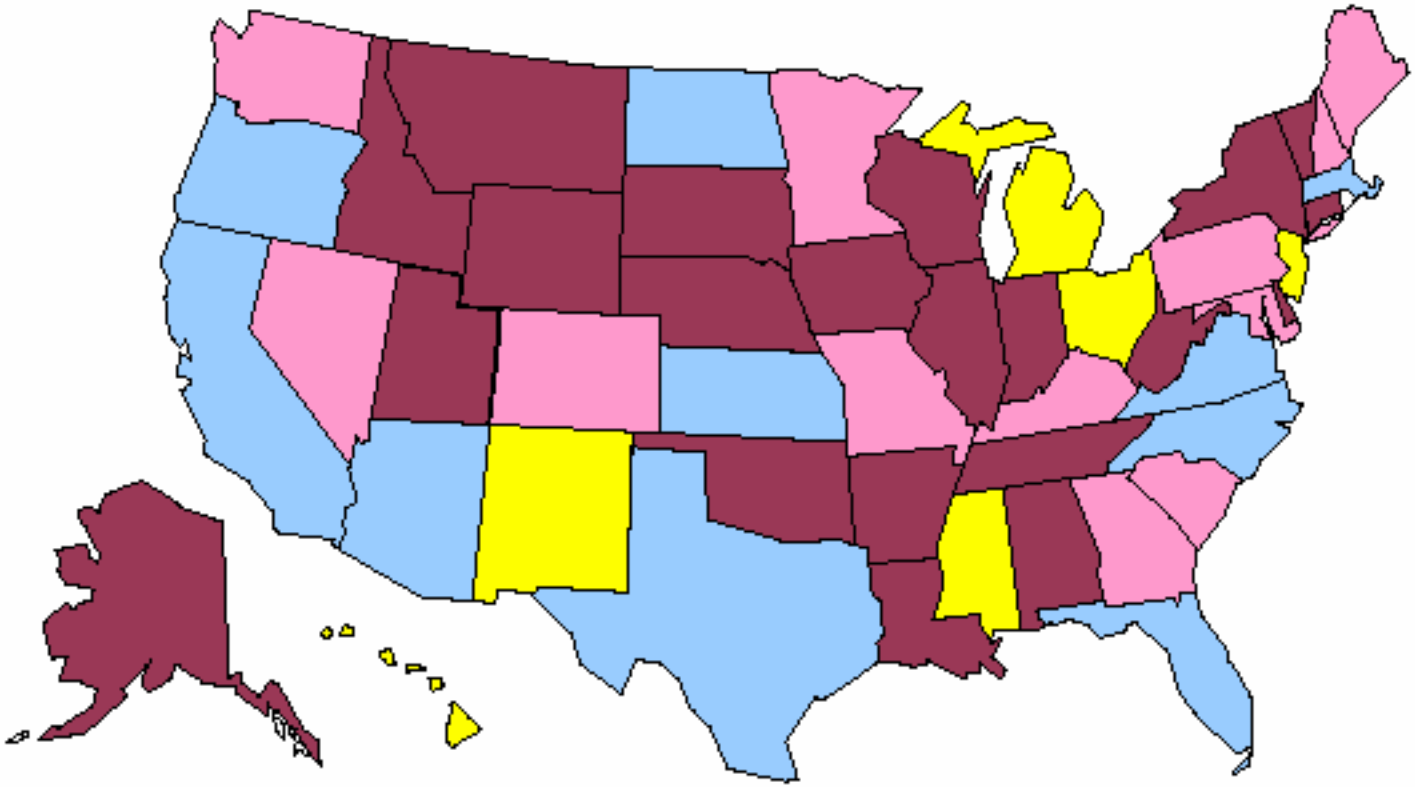
What are other doing?



- Law enacted to provide for QA in IT Projects
- Policy Enacted to provide for QA in IT Projects
- Unknown or no reference on web site
- Planning to implement a process

Source: individual state web sites

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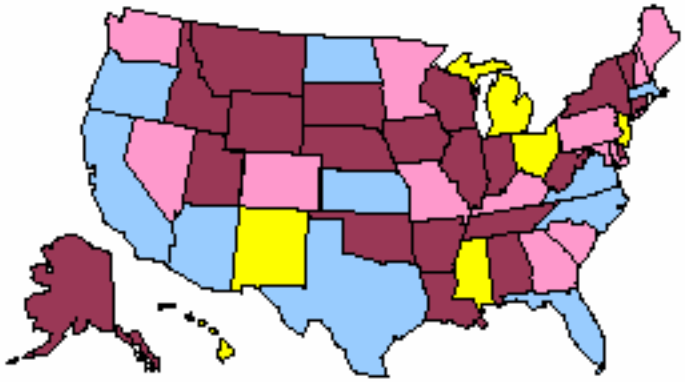
What are other doing?

- 1 state requires oversight at $200K level
- 3 states require oversight at $250K level
- 5 states require oversight at $500K level
- 13 states require oversight but do no specify level
- 2 states use a formula to calculate risk (includes cost, complexity, etc.)



Source: individual state web sites

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- Processes vary from requiring the central PMO to do assessments to requiring external providers to do IV&V.

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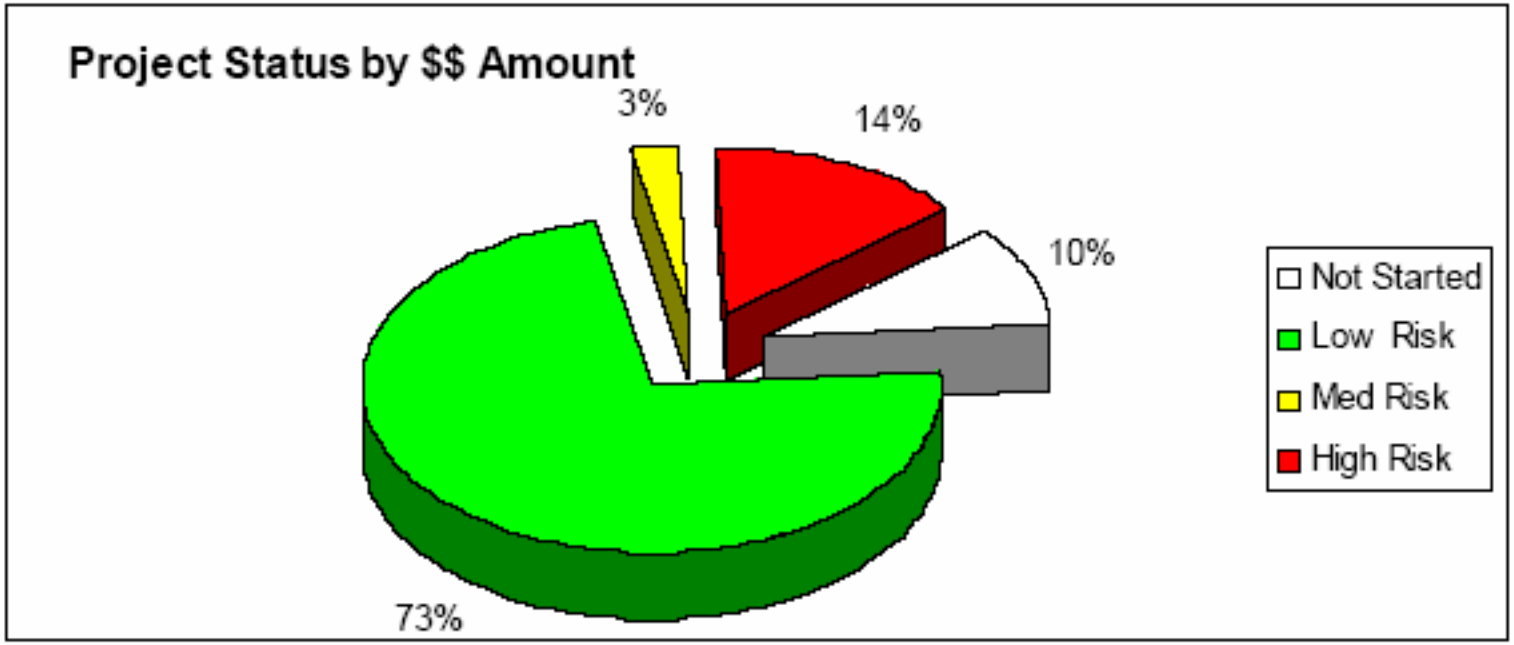
Observations about AZ's processes

- $354 Million in 159 projects



- Projects over $25,000 require project status reports to the PIJ

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What can we do about it ?

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So what did the successful ones do?

They found ways to manage the ***non-technical*** issues!

- They had strong **project management offices** that were organized for success
- They conducted **program assessments** of the status of the programs
- They hired third parties to provide **program oversight** on their critical programs
- They were brutally honest about the **root causes** of their particular programs, and were willing to make changes

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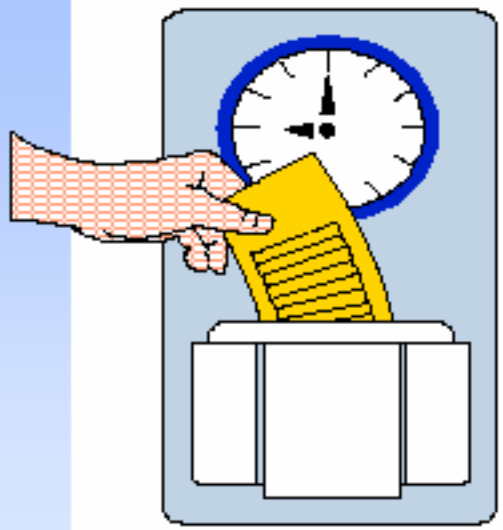
Program Management Office Best Practices and Metrics

- Full project management methodology
- Report to senior level
- Schedule/budget variance
- Recruit and train, certify project managers
- Discontinued projects (not “failed”)
- Compensate “master” project managers
- Multifunctional authority and responsibility
- Project interventions (remediation) and results
- Financial measurements (estimate-to-complete, checkbook)



User surveys

- Ethical project managers
- Status updates
- Minimal disruptions
- Meetings productive and efficient
- Responses to scope-change requests timely and fair

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Program Assessment
Continuous Project Reviews of Risks

Reviewing the risks of a project once is not sufficient to insure the successful completion of requirements.

Best Practice:
Continuous reviews of risks throughout the life of the project will give management the insight to insure the successful completion of the project.

Example Executive Summary for Ongoing Project Reviews

Project Scorecard *(Contd)*

	DATE	DATE	DATE	DATE	Comments
Operational Risk					
15. Customization needed					Detailed observations on project risks and recommended action items for BPL and Xerox...
16. Conversion Complexity					
17. Conversion Execution					
18. Integration Testing Complexity					
19. Performance Testing					
20. User Testing					
21. Contingency Planning					
22. IT Support					
23. Vendor Support					
Technology Risk					
24. Availability in the market					
25. Reference Due Diligence					
26. Viability of the Vendor					
27. Training needs					
External Risk					
28. Public Relations Management					
29. Due Diligence					
30. Risk Management Process					

sample

High Risk Medium Risk Low Risk

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Program Oversight -- Covering all the Bases

Managing a large, critical program is much more than just tracking performance vs. schedule and budget.

Framework	LifeCycle			
	Strategize	Plan	Execute	Manage
Financial Management	Financial Baseline	Business Case	Funding Management	Outcome Evaluation
Performance Management	Performance Baseline	Service Level Agreement	Dashboard Creation	Performance Monitoring
Organizational Management	Skill / Role Assessment	Impact Analysis	Alignment	Staff Optimization
Change Management	Readiness Assessment	Communications	Expectation Management	Reinforcement
Contract Management	Acquisition Strategy	Statement of Work	Compliance	Contract Refresh
Supplier Management	Market Research	Source Selection	Integrated Project Teams	Relationship Assessment
Customer Management	Business Objectives	Functional Requirements	Acceptance	Feedback
Solution Management	Concept Development	Technical Requirements	Verification & Validation	Solution Integration

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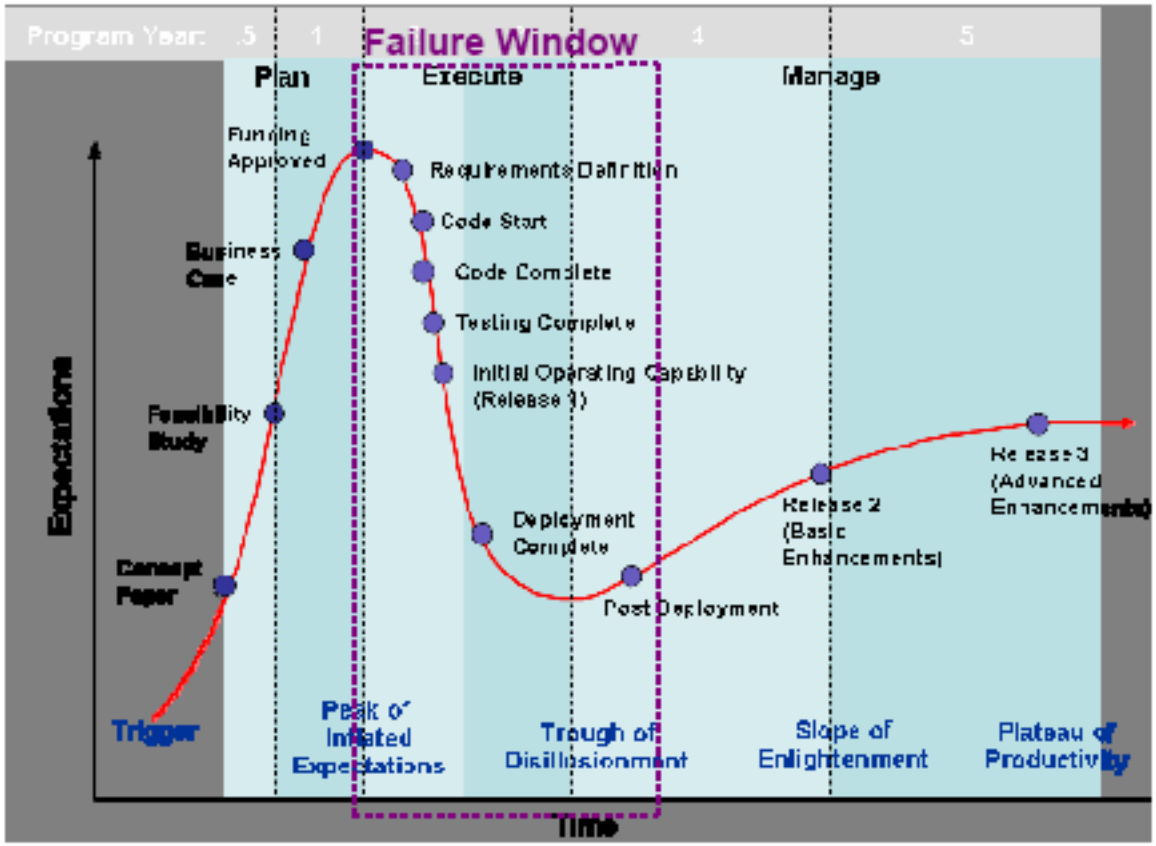
Program Oversight -- Preventative Medicine



"Verification and Validation Without Independence: A Recipe For Failure,"
http://courses.cs.vt.edu/~cs5704/spring01/arthur/IVnVRecipe.pdf

- ***IV&V (requirements through deployment) will increase development costs 10% to 18% percent .... but...***
  - *20% - 28% of IV&V costs can be recovered if IV&V starts with coding*
  - *92% - 180% if IV&V costs can be recovered if IV&V starts with requirements.*
- ***Costs of IV&V are offset by fewer problems and errors, and higher satisfaction***

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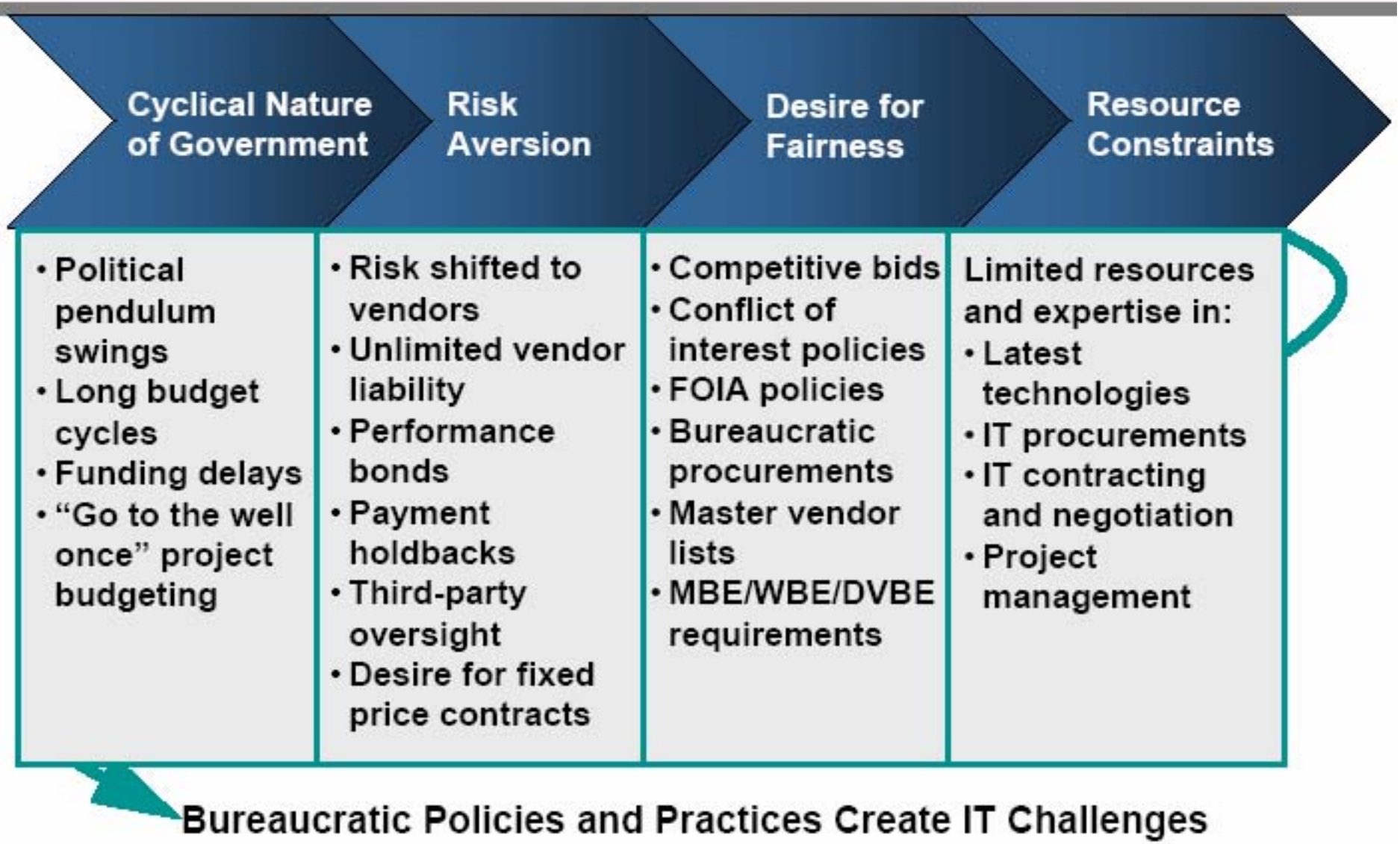
Root Cause: Government IT Procurements



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Top Ten RFP Pitfalls that lead to cost overruns

1. Overbundling procurements
2. Insufficient marketplace analysis
3. Unclear statement of work
4. Overly-prescriptive requirements
5. Shortsighted pricing models
6. Unilateral contract and payment terms
7. Lack of performance metrics
8. Insufficient due-diligence
9. Lack of structured evaluation criteria
10. One-shot deals

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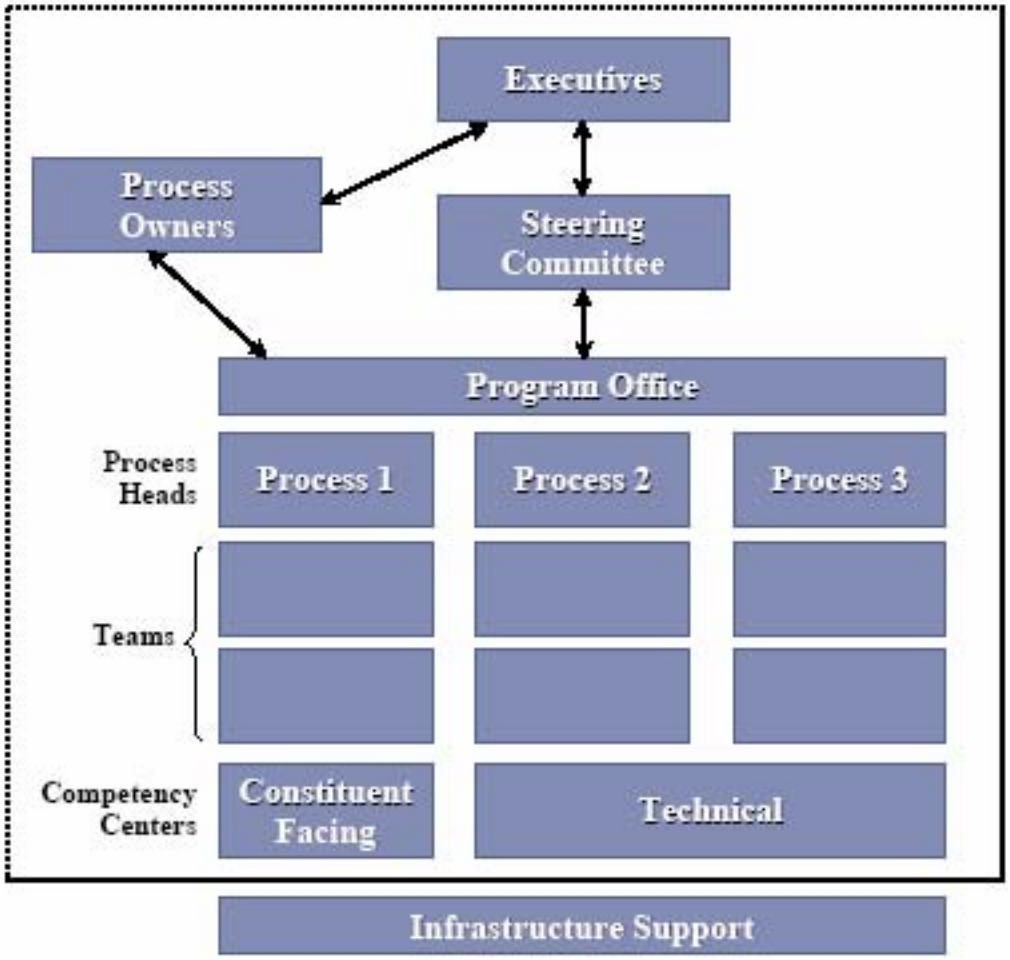
Root Cause: Governance



- Executive sponsorship is critical (high-level executive sponsorship plus steering committee).
- Process owners must be identified and be accountable.
- Program office approach is advised (as opposed to "project management").
- Program organization should be based on process teams.
- IT is now composed of competency center application/process skills and an infrastructure service organization.
- The steering committee and process owners have leadership for managing significant changes in project scope, schedule or resources, with support and analysis provided by the program office.

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Root Cause: People and Change

Won't Change

Traits
- Not bought in
- Threatened
- Pride in Ownership
- Experienced Previous Failures

Strategies
- Communication
- Active Engagement
- Responsible for Change
- Incentive
- Decisive Leadership
- Biggest Critic to Biggest Advocate

Can't Change

Traits
- Lacking Skills
- Lacking Understanding
- Would Rather Quit

Strategies
- Communication
- Engagement
- Training
- Career Counseling

What Change?

Traits
- Ambivalent
- Follower

Strategies
- Communication
- Engagement
- Exposure
- Training/Education
- Support

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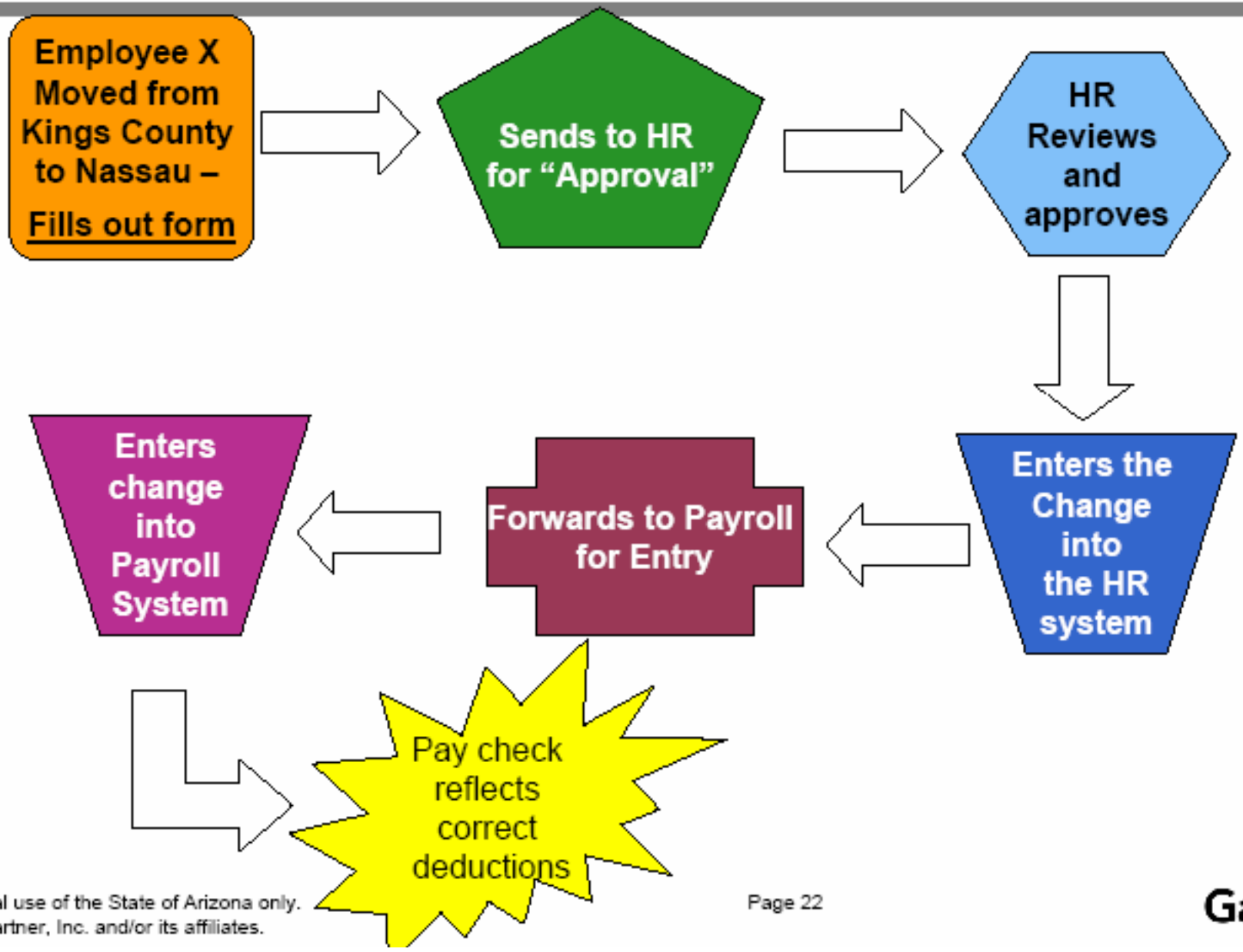
Payroll clerk spends 7 hours per day processing revision requests



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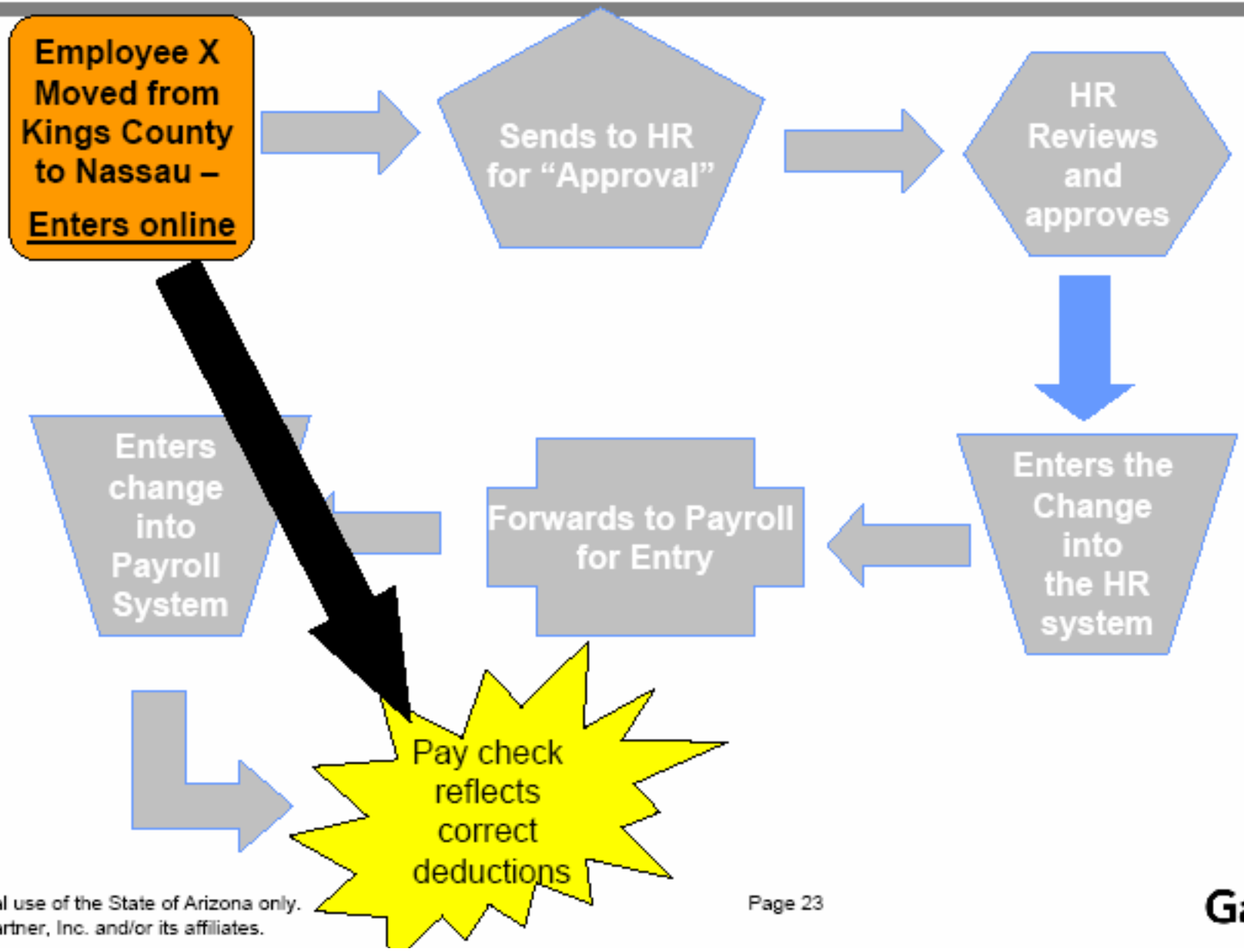
What does the payroll clerk now do for 7 hours a day?



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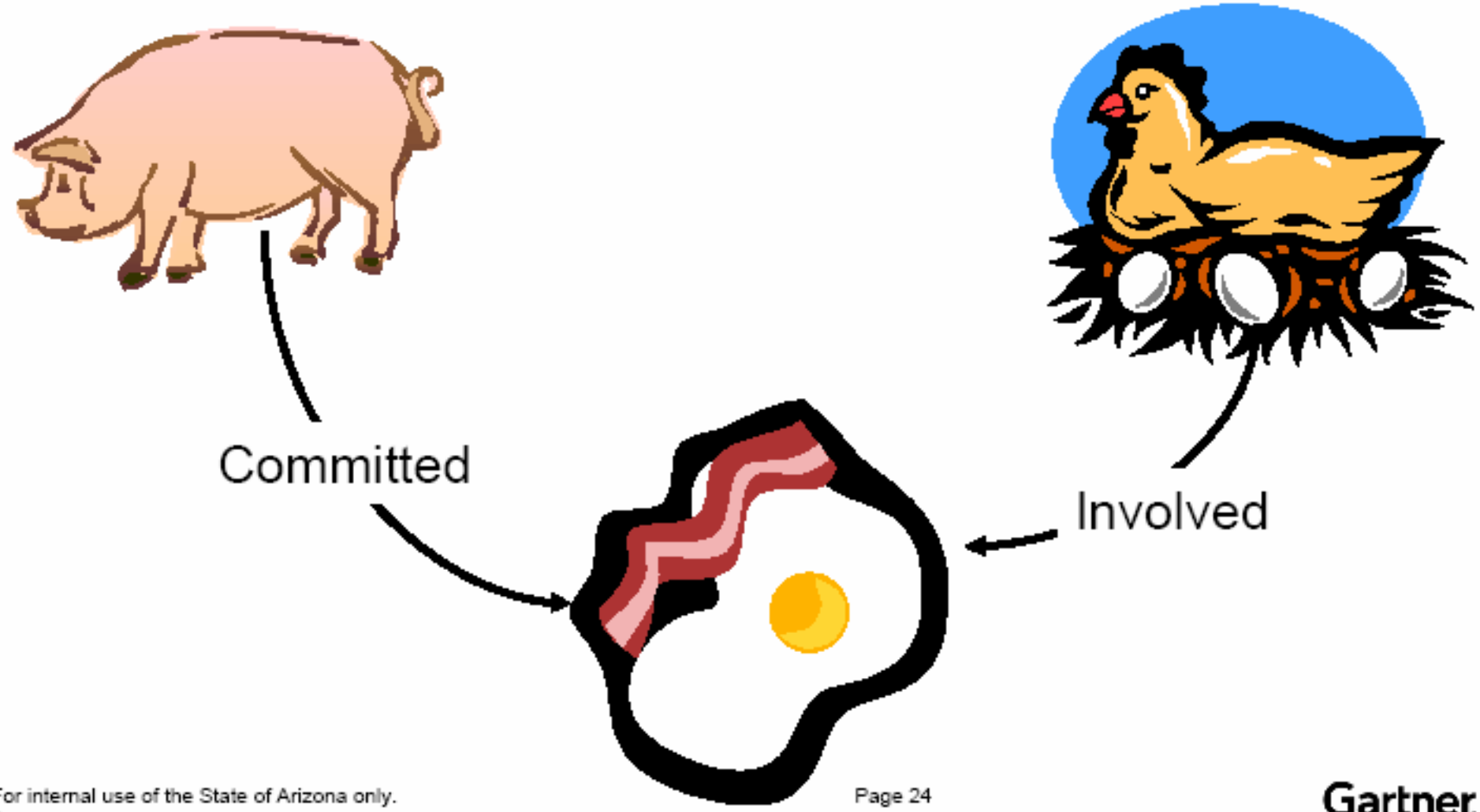
Root Cause: Executive Sponsorship

Involvement vs. Commitment



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Expectations: Emphasizing Value During Implementation

Does the project team know why the project is happening?
The Users? Are all of these constituencies aligned to the Executives?

Understand and detail potential benefits

Document current state metrics

Link the benefits to the plan

Keep the targets visible

Validate improvements during project

Measure and improve

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Case Studies

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Example Case Study
911 Program Oversight

Issue – Large urban government, new mayor and recent outage of the 911 telephone line

History – Major project failures

Analysis – A 911 call resulted in up to 3 interagency conference calls to dispatch the right unit

Need – Total recreation of the 911 system, processes, and organizational structure

Response – Gartner brought its extensive public safety and project management expertise to oversee the entire project. The scope of the assignment was large and included overseeing activities ranging from building design and construction to network installation.

Results: Project is ongoing, but the city executive management has better visibility on status and issues on this project that will enable the city to make quicker and better decisions, which has already and will continue to save the city money.

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Example Case Study
US Army Project Management Office

Improve IT Infrastructure

Separate, regional IT Infrastructures

Set up PMO

Tools to run the office included:

- Engineering process guides
- Knowledge management base
- Master project management template
- Communication plans
- Helped present the Enterprise Business Integration Center's (EBIC) capabilities

Consistent IT Infrastructures

Result – The Army PMO is now real and achieving the Army's objective. The EBIC provided effective support services to the US Army during its IT Infrastructure Improvement and Active Directory implementations.

Customer feedback toward the office is consistently very positive.

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Conclusions

- A significant amount of money is spent on projects that never achieve the value that they intended
- Most of the reasons that projects fail are cultural or political in nature
- There are things that organizations can do to prevent these failures
  - Implement an effective project management office
  - Conduct periodic program assessments to ensure they are on track
  - Bring in the needed expertise to do program oversight and ensure the success of your program
  - Take a brutal look at the root causes of past project failures (requires processes to capture past practices)

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